

XXX. *Accounts of a Capricorn Beetle, found alive in a Cavity within a sound Piece of Wood, and of the Horn of a Fish struck several Inches into the Side of a Ship; by C. Mortimer, M. D. Secr. R. S.*

ABOUT Michaelmas 1728. I went to *Portsmouth* with some Friends, where having taken a View of his MAJESTY'S Yard and Docks for building Ships of War; and satisfied my Curiosity in examining several curious Contrivances used in Naval Architecture; Mr. *Bankley*, the Clerk of the Survey, invited me to his House, where he shewed me the Insect as represented in TAB. VIII. *Fig. 6. and 7.* The People of the Yard were much alarmed at it, none knowing what to make of it; and all imagining it was venomous. On opening the Piece of Wood, (which was tied together with a Packthread) I found this Animal yet alive, and moving in a large Cavity in the Middle of the Wood, which appeared otherwise sound, having no visible Entrance into it. This Beetle, being turned out upon a Sheet of Paper, crawled about upon it. Mr. *Bankley* gave me the following Account of it: " This Insect was found *August 26. 1728.*
 " in splitting a Piece of Exotic Wood into Two
 " Pieces, cut across the Grain $4\frac{1}{2}$ Inches thick, taken
 " up in the Hold of his MAJESTY'S Ship *Bredah*,
 " when in the Dock at *Portsmouth*, after her Return
 " from the *West-Indies*: It lived upwards of a Month
 " afterwards. The Hole in which it was nourished,

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" was

“ was 5 Inches deep, and 2 $\frac{1}{4}$ Inches by 1 $\frac{1}{4}$ Inch
 “ broad, in the great Piece ; 2 Inches deep, and 2 $\frac{1}{4}$
 “ Inches by 1 $\frac{1}{4}$ Inch broad, in the smaller Piece.
 “ There was not the least Sign of any Defect on the
 “ Outside of the Wood, but it appeared very fair and
 “ sound; the Inside was porous, having a Grain like
 “ *Cedar*, but in Colour not unlike yellow *Sanders*.”

On Examination, I found this Insect to be a sort of *Scarabæus* called *Capricornus* from its long Horns; which in this were very much crumpled, and partly broken off against the Wood, in its Confinement: Its Wings were likewise crumpled on the same Account. The Females of these Insects usually lay their Eggs in the Crevices of the Bark of Trees: So it is probable, that as soon as this Insect was hatched in Form of a Worm, it gnawed its Way through the Bark into the Wood; and that afterwards the Hole it had made in the Wood, closed towards the Outside; and the Worm, still continuing to gnaw deeper, formed the large Cavity; and then taking its perfect Form of a Beetle, remained in that hollow Place, where the Sap of the Tree arising, might have supplied it with Nourishment, and even Air; since it is known, by various Experiments, that Air will insinuate itself, where-ever such Fluids, as contain Air in them, can penetrate.

I have seen in the magnificent *Museum* of Sir *Hans Sloane*, Bart. a Piece of Wood, found without, having a Cavity within, wherein was found alive a sort of Beetle, but I think of a different *Species*. It came from *Jamaica*, if I remember right.

At the same time, that curious Gentleman Mr. *Bankley* shewed me the *Horn* of a *Fish* that had penetrated above 8 Inches into the Timber of a Ship [see

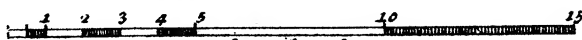
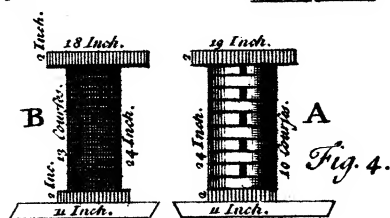
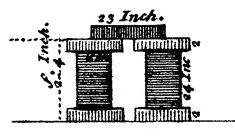
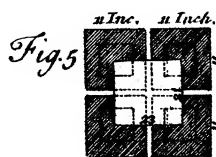
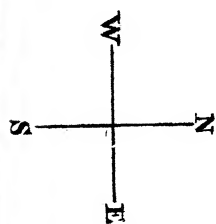
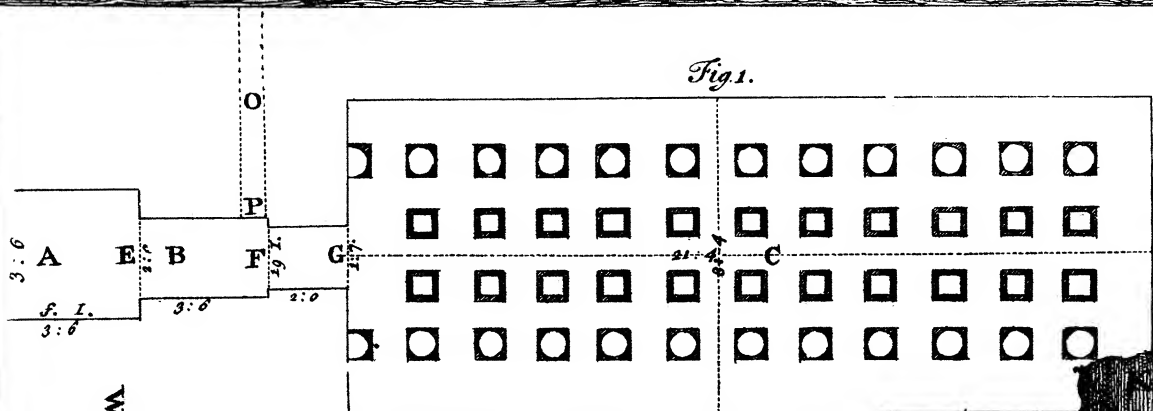
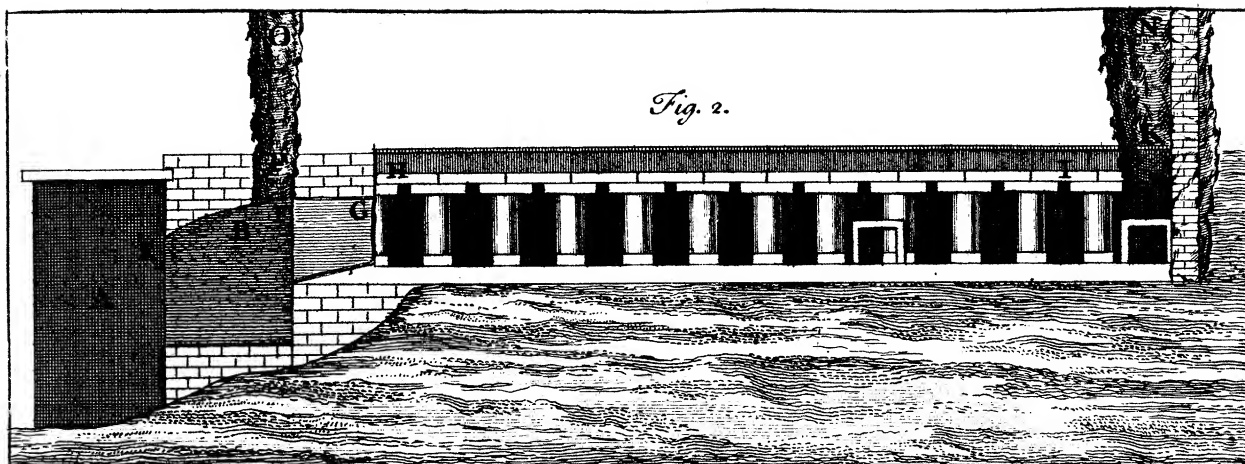
TAB. VIII. *Fig. 8.*]; and gave me the following Relation of it: “ His MAJESTY’s Ship *Leopard*, having
 “ been at the *West-Indies*, and on the Coast of
 “ *Guiney*, was ordered by Warrant from the Honourable *Navy-Board*, dated *Aug. 18. 1725.* to be
 “ cleaned and refitted at *Portsmouth* for Channel-
 “ Service: Pursuant thereto, she was put into the
 “ great Stone-dock; and, in stripping off her Sheathing, the Shipwrights found something that was
 “ uncommon in her Bottom, about 8 Feet from her
 “ Keel, just before the Fore-mast; which they searching into, found the Bone or Part of the Horn of
 “ a Fish of the Figure here described; the Outside
 “ rough, not unlike *Seal-skin*; and the End, where
 “ it was broken off, shewed itself like coarse Ivory.
 “ The Fish is supposed to have followed the Ship,
 “ when under Sail, because the sharp End of the
 “ Horn pointed toward the Bow: It penetrated with
 “ that Swiftneſs or Strength, that it went through
 “ the Sheathing 1 Inch thick, the Plank 3 Inches
 “ thick, and into the Timber $4\frac{1}{2}$ Inches.”

With what prodigious Force muſt this Fiſh have moved? For had it met the Ship, the Motion of the Ship would have aſſiſted the Penetration of the Horn; but the Direction of it pointing from the Stern towards the Head, ſhews that the Fiſh ſtruck againſt the Ship, either while at Anchor; or that it overtook it, while under Sail; in which caſe the Force of the Fiſh muſt have been ſtill greater; and this was probably the Caſe, becauſe nobody in the Ship remembered the Shock. Several able Workmen on the Spot aſſured me, that, with a Hammer of a Quarter of an Hundred Weight, they could not drive in a Pin of Iron, of the ſame Form and Size, into ſuch
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sort of Wood, and to the same Depth, in less than Eight or Nine Strokes.

XXXI. *Abstracts of the original Papers communicated to the ROYAL SOCIETY by Sigismond Augustus Frobenius, M. D. concerning his Spiritus Vini Æthereus: Collected by C. Mortimer, M. D. Secr. R. S.*

DR. *Frobenius* being dead, and some learned Chemists at *Paris*, in *Germany*, and in *Italy*, having endeavoured, in various Manners, and with different Contrivances, to make this *Æthereal Spirit*; I thought it would be acceptable to the Curious in *England*, to give them an Abstract of the Three Papers the Doctor communicated to the ROYAL SOCIETY concerning his *Spiritus Vini Æthereus*. The First he gave in on *Feb. 19. 1729-30.* along with what is printed in N^o 413. p. 283. of these *Transactions*, but was desired by the Author not to be published at that Time. In this Paper he says, you must “ take of
 “ Oil of Vitriol, and the highest rectified Spirit of Wine,
 “ equal Parts by Weight, not by Measure: That the
 “ Oil of Vitriol was to be poured by little and little
 “ into the Spirit of Wine, because they will grow hot
 “ upon mixing; that they should be shaken often, that
 “ they may mix thoroughly; then to be digested gently
 “ in a glass Retort, and a large Receiver to be applied
 “ and luted on, lest the subtil Spirits should fly away:
 “ Then distil them in an *Athanas*, in gentle Digestion,
 “ for Three Days; and pour back the distilled Liquor,
 “ till



C. Mortimer ad descript. delin.

- A *The Timber.*
B *The Plank.*
C *The Sheathing.*

Fig. 6.

Fig. 7.

Fig. 8.

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